<u>**Amendments to the Specification:**</u>

Please add the following between the TITLE and BACKGROUND on page 1.

This application claims the benefit of and incorporates by reference U.S. Provisional Application No. 60/481941 filed January 22, 2004.

Please amend the SUMMARY OF THE INVENTION on page 2 as follows.

A method of controlling an aircraft in a turn without the use of a rudder by producing <u>Induced Yaw</u> ~~induced yaw~~. ~~Induced yaw~~ <u>Induced Yaw</u> being produced by creating a net induced drag differential between an inboard wing to the turn and an outboard wing to the turn, whereby the net induced drag differential overcomes adverse yaw produced by the outboard wing.

Please amend the second paragraph starting on page 5 as follows.

Since induced drag is the product of a 3 dimensional wing, it makes sense that changing the shape of the wing will change the amount of induced drag. However, the Induced Drag Coefficient equation was derived for a symmetric wing planform, as asymmetric wings have not been of interest to researchers. Wind tunnel tests show that induced drag is not simply a function of the wing aspect ratio, but the effective aspect ratios of each wing half. This is to say that if the planform is varied disproportionately and hence the effective aspect ratio is varied, it will be observed that there are differing drag characteristics on each half of the wing. And the wing half with the lower effective aspect ratio will exhibit a lower coefficient of induced drag. Added wingtip extensions which are coplanar to the wing will also produce lift. Varying the planform by varying the coplanar winglet area on both wing halves during flight, provides control surfaces that can simultaneously produce lift and yaw. And if the wing and winglets are designed properly, then <u>Induced Yaw</u> ~~induced yaw~~ of the winglet will meet or exceed the adverse yaw generated by the increase in wing area. Meeting or exceeding the adverse yaw removes the requirement of an aircraft to have a rudder to make a banked turn. Fig. 1 shows a schematic interpretation of the net induced drag differential using adjustable coplanar winglets.

Please amend the second paragraph starting on page 6 as follows.

To test the effect of Induced Yaw ~~induced yaw~~, a wind tunnel model was designed and constructed based on the above concept of asymmetric winglets to turn an aircraft without a rudder. The wind tunnel model included a standard rectangular wing 10 and two detachable asymmetric winglets 12, 14 attached to the ends of the rectangular wing, as shown in Figs. 2-3. The rectangular wing 10 is a single plywood high-lift rectangular airfoil. Figs. 4-5 represent the measured yawing and rolling moments experienced by the wind tunnel model of Figs. 2-3. The wind tunnel model was tested at fixed wind velocity of one-hundred-and-three (103) feet-per-second for different degrees of angle of attack (alpha). The data of Fig. 4 is the yawing moment experienced by the wind tunnel model at a velocity where positive values represent a rotation in the direction of the planned left turn. Referencing Fig. 2, the positive yawing moments would be acting in the counter clockwise direction. The data of Fig. 5 is the rolling moment experienced by the wind tunnel model at a velocity where positive values represent a roll in the direction of the planned left turn. Referencing Fig. 2, the positive rolling moments would represent a roll to the left, that is the left half or inboard wing section would dip while the right half or outboard wing section would rise. The data shows that it is possible to have a simultaneous increase in lift and reduction in drag on a given wing section. The data also demonstrates that an aircraft planform can be varied to produce disproportional induce drag and thus yaw across a 3-dimensional wing. Whereby, increasing the induced drag on the inboard wing section and decreasing the induced drag on the outboard wing section creates a wing which turns without the negative effects of adverse yaw.